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Did they stay or did they go? Digital talent and ICT anchor firm restructuring in Waterloo region

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Digital talent and ICT anchor firm restructuring in Waterloo region



TARA VINODRAI, PhD

BEN SPIGEL, PhD

Chancellor's Fellow
University of Edinburgh Business School

DID THEY STAY OR DID THEY GO?

1. Entrepreneurial eco-systems and labour markets
 - The case of Blackberry / Kitchener-Waterloo
2. What can we do differently? Using novel data sets
3. What did we find? Pilot study results
4. Where are we going? Next steps

DID THEY STAY OR DID THEY GO?

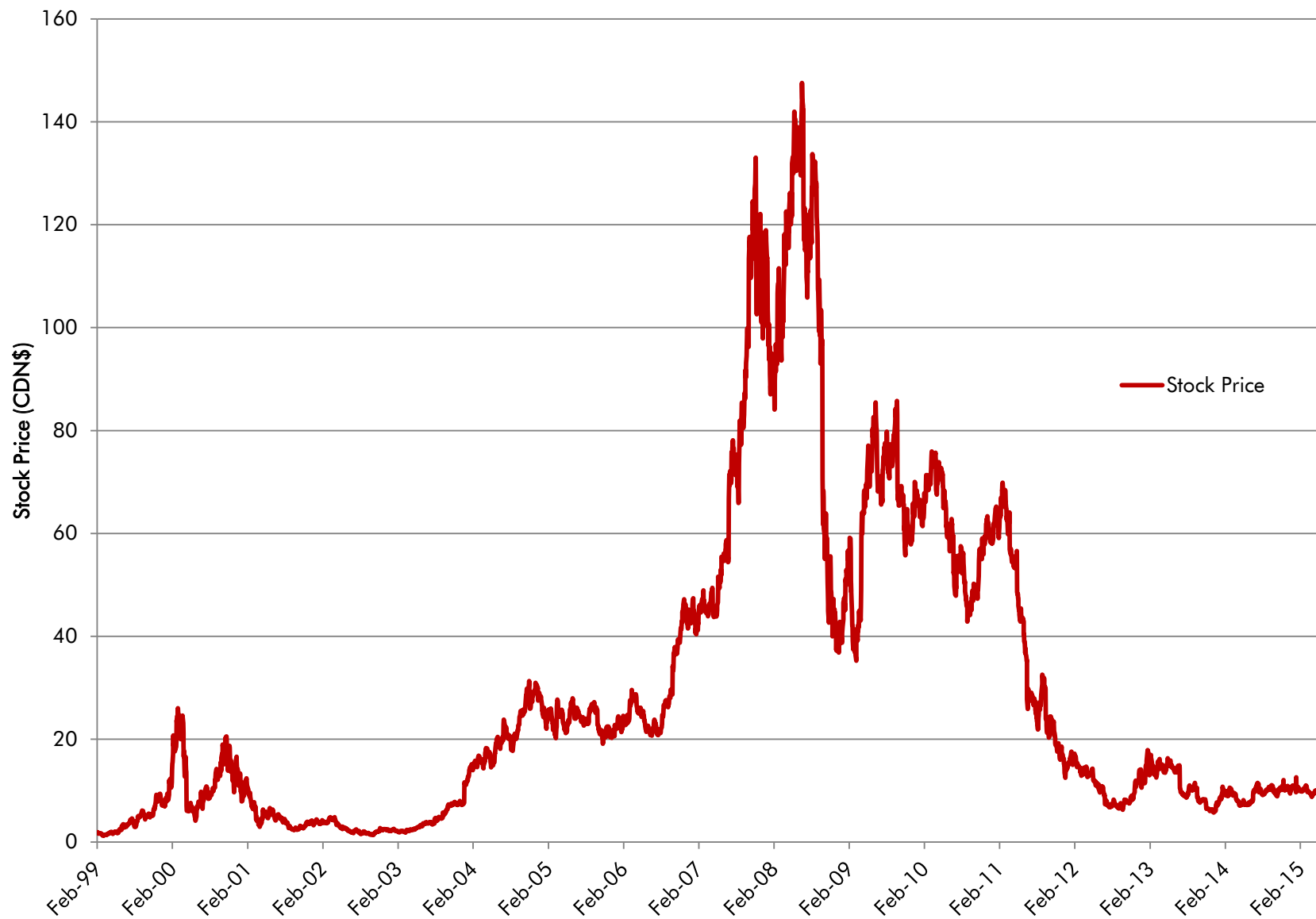
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Source: Yahoo Finance. [Author's calculations]

FIRM PERFORMANCE
Blackberry Stock Prices, 1999-present



Inside the fall of BlackBerry: How the smartphone inventor failed to adapt

SEAN SILCOFF, JACQUIE MCNISH AND STEVE LADURANTAYE

The Globe and Mail

Published Friday, Sep. 27 2013, 7:03 AM EDT

Last updated Wednesday, Nov. 06 2013, 10:09 AM EST



Why BlackBerry has a fighting chance at a comeback

RAY SHARMA

Contributed to The Globe and Mail

Published Thursday, Mar. 05 2015, 2:46 PM EST

Last updated Friday, Mar. 06 2015, 7:05 AM EST



INNOVATE OR DIE

The end of BlackBerry as we know it

RYAN CALIGIURI

Special to The Globe and Mail

Published Tuesday, Feb. 03 2015, 5:00 AM EST

Last updated Wednesday, Feb. 04 2015, 10:45 AM EST

THE FIRM IN THE REGION, THE REGION IN THE FIRM



DEBATE THIS: INNOVATION IN EDUCATION

Innovation in Waterloo won't die with BlackBerry

FERIDUN HAMDULLAHPUR

Contributed to The Globe and Mail

Published Tuesday, Oct. 08 2013, 7:00 AM EDT

Last updated Wednesday, Oct. 09 2013, 11:19 AM EDT



STARTUPS

Waterloo circuit-board makers raise \$70,000 in 35 minutes on Kickstarter

JARED LINDZON

Special to The Globe and Mail

Published Tuesday, Feb. 10 2015, 1:03 PM EST

Last updated Tuesday, Feb. 10 2015, 1:24 PM EST



Kitchener's Clearpath Robotics gets cash boost to meet high demand

SHANE DINGMAN

The Globe and Mail

Published Wednesday, Mar. 18 2015, 8:00 AM EDT

Last updated Wednesday, Mar. 18 2015, 3:19 PM EDT

THE FIRM IN THE REGION, THE REGION IN THE FIRM

- “One of the great myths is that this sort of environment could be created by executive fiat. That’s impossible. This community has been creating role models – we’re talking about role models of enterprise and innovation, small businesses -- we’ve been doing it for over 100 years ... It’s incorrect to suggest that somehow a Research in Motion created this environment. **Research in Motion is a reflection of this environment.**”

Larry Smith, University of Waterloo (CBC News,
November 18, 2013)

THE FIRM IN THE REGION, THE REGION IN THE FIRM

- What is the nature of inter-firm, inter-industry/cluster, and geographic mobility for digital talent?
- What is the impact and influence of key events (e.g. global economic downturn, demise/restructuring of local anchor firm) on
 - the dynamics of the local labour market for digital talent?
 - new firm formation and entrepreneurship by digital talent?
- What are the geographic and industrial dimensions of practice-based networks and knowing communities amongst digital talent?

RESEARCH QUESTIONS

- Understanding regional economic change
 - Path dependence and regional evolution / resilience
 - Role of 'regional culture', institutions and organizational action in shaping trajectories
 - Exogenous shocks provide windows for change in regional economic trajectory (Martin and Sunley 2010)
 - Studying regions by studying firms (Markusen 1994)
- Cluster genesis and entrepreneurial spark
 - Government lab or anchor firm closures release talent into the local economy resulting in innovation, new firm formation, etc. (e.g. Feldman and Francis 2005)
 - Growing interest in 'entrepreneurial eco-systems' that create the conditions for new venture creation

ENTREPRENEURIAL ECO-SYSTEMS & LABOUR MARKET DYNAMICS

- Labour market mobility and innovation
 - High levels of labour market mobility contribute to knowledge circulation and innovation
- Evidence from Silicon Valley's ICT cluster
 - inter-cluster mobility: 'Brain circulation' (Saxenian 2006)
 - intra-cluster mobility: Localized knowledge spillovers embedded in regional labour markets (Angel 1991; Almeida & Kogut 1999)
- Modified/tempered by extent to which industries are related (Boschma et al. 2014)
- National context / economic system matters (Vinodrai 2013; Storz et al. 2014)

ENTREPRENEURIAL ECO-SYSTEMS & LABOUR MARKET DYNAMICS

- Innovation, creativity and governance in Kitchener-Waterloo
 - Builds on Innovation Systems Research Network's (ISRN) project on ICT clusters (Wolfe, Bramwell, Nelles) and city-regions (Bathelt, Nelles, Spigel, Vinodrai)
 - 150 interviews between 2007 and 2012
 - Importance of RIM/Blackberry as a conduit for global talent
 - Limited mobility of talent between firms
 - Stands in stark contrast to the Silicon Valley model
 - Role of university technology-transfer somewhat overstated (except in form of co-op education), but strong start-up support system / culture

PREVIOUS RESEARCH

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- Need for alternative datasets to cover areas missed by more traditional sources
 - Lack of longitudinal data, esp. at high geographic / sectoral resolution
- LinkedIn profiles contain information on location, employment history, job titles, educational attainment
- Incentive for individuals to keep data accurate and up to date, especially in occupations / industries with high labour mobility



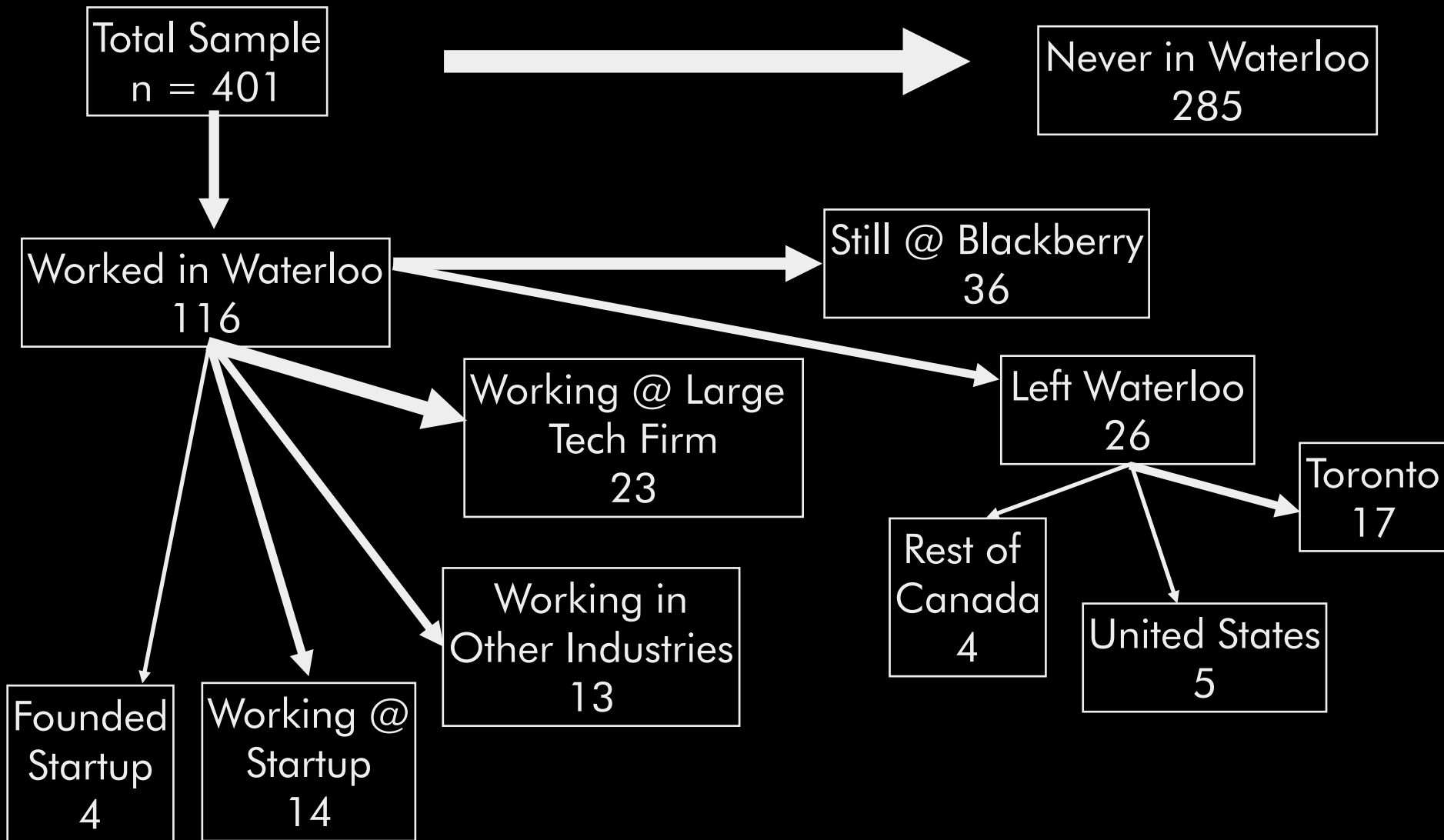
UNCONVENTIONAL SOURCES OF DATA: LINKED IN

- Feldman and Lowe (2015)
 - Use LinkedIn to capture founder educational and career history data
 - Part of a broader digital data effort to understand organizational/institutional influences on firms / regional economy
- Jiang et al. (2014) & Fracas et al. (2014)
 - Use LinkedIn to follow career trajectories and credit rating behaviour of analysts who worked at three major rating agencies (Moody's, S&P, Fitch)
- Mandel (2014)
 - Use LinkedIn's *Economic Graph* (under development) to calculate regional 'connectedness' and associations with regional growth patterns

PREVIOUS STUDIES USING LINKED IN DATA

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PRELIMINARY / PILOT RESULTS

Geography**	Count	%
Waterloo	90	77.6
Toronto	17	14.7
Rest of Canada	4	3.4
United States	5	4.3
TOTAL	116	100.0

Employer / Sector**	Count	%
Blackberry	36	31.0
Entrepreneur	4	3.4
Work for a start-up	14	12.1
Tech industry	39	33.6
Other industries	23	19.8
TOTAL	116	100.0

*** Preliminary results. Treat with caution.*

DID THEY STAY OR DID THEY GO?

Employer / Sector**	Local	Non-local	Total
Blackberry	36 (31.0%)	0 (0%)	36 (31.0%)
Entrepreneur	4 (3.4%)	0 (0%)	4 (3.4%)
Work for a start-up	14 (12.1%)	0 (0%)	14 (12.1%)
Tech industry	23 (19.8%)	16 (13.8%)	39 (33.6%)
Other industries	13 (11.2%)	10 (8.6%)	23 (19.8%)
TOTAL	90 (77.6%)	26 (22.4%)	116 (100%)

*** Preliminary results. Treat with caution.*

DID THEY STAY OR DID THEY GO?

- Former Blackberry/RIM workers appear to be staying in the region
 - Limited evidence of entrepreneurship and new firm formation
 - Lower TEA rate (3.4%) as compared to Ontario (8.5%) estimates from Global Entrepreneurship Monitor
 - Mostly (but by no means exclusively) remaining in the (local) tech sector
- Limited evidence of 'brain drain' to the United States or elsewhere
 - Embedded in Waterloo/Toronto region

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- Modify and enhance analysis
 - Use LinkedIn, D&B, Crunchbase APIs to enhance information
 - Differentiation by gender, ethnicity, type of talent (managerial, technical)
 - Integrate temporal data on career history / entrepreneurial activity
 - Demonstrate impact of / change in response to economic shocks and key firm decisions
- Extend research to other areas (i.e. broader regional tech sector, other regions/clusters) and investigate potential as measure for 'entrepreneurial ecosystems'
- Engage with LinkedIn re: data access

WAYS FORWARD / NEXT STEPS

- Thanks to:
 - Social Sciences and Humanities Research Council (SSHRC)
 - Faculty of Environment, University of Waterloo
 - Deborah Huntley, Munk School of Global Affairs, University of Toronto
- Contact us:
 - tara.vinodrai@uwaterloo.ca
 - Ben.Spigel@ed.ac.uk
- Cover photo source
 - <http://fusion.net/story/45438/the-life-death-and-rebirth-of-blackberrys-hometown/>

QUESTIONS?